



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-1021; Product Identifier 2017-NM-052-AD; Amendment 39-19198; AD 2018-04-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Fokker Services B.V. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Fokker Services B.V. Model F28 Mark 0100 airplanes. This AD was prompted by a report that a jammed control cable prevented the full extension of the nose landing gear (LG). This AD requires a general visual inspection of the LG handle teleflex cable conduit connector for the presence of a grease nipple, a maintenance records check of affected airplanes, a detailed inspection for corrosion and damage of the LG handle teleflex cable, and corrective actions if necessary. This AD also requires revising the maintenance or inspection program, as applicable. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email [technicalservices@fokker.com](mailto:technicalservices@fokker.com); Internet <http://www.myfokkerfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1021.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1021; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Tom Rodriguez, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone 206-231-3226; fax 206-231-3398.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Fokker Services B.V. Model F28 Mark 0100 airplanes. The NPRM published in the Federal Register on November 6, 2017 (82 FR 51364) (“the NPRM”). The NPRM was prompted by a report that a jammed control cable prevented the full extension of the nose LG. The NPRM proposed to require a general visual inspection of the LG handle teleflex cable conduit connector for the presence of a grease nipple, a maintenance records check of affected airplanes, and if necessary, a detailed inspection for corrosion and damage of the LG handle teleflex cable, replacement if found, and lubrication. It also proposed to require revising the maintenance or inspection program, as applicable. We are issuing this AD to detect and correct erratic or hard-to-move LG handles, which could lead to the nose LG not being in the fully extended position during landing and consequent damage to the airplane and injury to the flight crew and passengers.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0068, dated April 24, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Fokker Services B.V. Model F28 Mark 0100 airplanes. The MCAI states:

A report was received of an allegedly post-SBF100-32-107 (introducing a teleflex cable conduit with a grease nipple and a stainless steel teleflex cable) Fokker 100 aeroplane landing with a nose landing gear (LG) that was not completely in the extended position, in spite of the application by the crew of the relevant normal and

abnormal Airplane Flight Manual LG extension procedures. The investigation revealed that the failure of the nose LG to completely extend had been caused by a jammed teleflex cable of the LG control system, which resulted in a hydraulic lock in the nose LG extension/retraction actuator. The investigation also revealed that the teleflex cable conduit connector on the subject aeroplane did not have the grease nipple installed, so that the aeroplane was actually not in the full post-SBF100-32-107 configuration.

Based on an incorrect assumption with regard to full incorporation of SBF100-32-107 (i.e. the presence of the grease nipple on the conduit connector), Maintenance Review Board (MRB) task 323100-00-04 (removal, inspection, greasing and reinstallation of teleflex cable), which is only applicable for aeroplanes without the grease nipple, had been removed from the scheduled maintenance programme for the aeroplane. As a result, no detailed inspection or greasing of the teleflex cable had been accomplished on the aeroplane during the last 24,000 flight cycles (FC) or 17 years, leading to a lack of lubricant and excessive wear of the cable. Analysis indicates the possibility of more aeroplanes that do not have the grease nipple on the conduit connector, and where MRB task 323100-00-04 has been inadvertently removed from the scheduled maintenance program.

This condition, if not detected and corrected, could lead to further landings with the nose LG not in the fully extended position, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Fokker Services published SBF100-32-167 (hereafter referred to as 'the SB' in this [EASA] AD) to provide inspection instructions.

For the reasons described above, this [EASA] AD requires a one-time [general visual] inspection of the LG handle teleflex cable conduit connector for the presence of the grease nipple and, depending on findings, [a maintenance records check and] accomplishment of applicable corrective action(s). This [EASA] AD also requires the

reporting of findings to Fokker Services, and to ensure that the maintenance [or inspection] programme [as applicable] contains those instructions applicable to the aeroplane configuration.

Required actions also include a detailed inspection for corrosion and damage of the LG handle teleflex cable, replacement of the LG handle teleflex cable if necessary, and lubrication of the LG handle teleflex cable. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1021.

### **Comments**

We gave the public the opportunity to participate in developing this final rule. We considered the comment received. The commenter, Peter North, supported the NPRM.

### **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

Fokker Services B.V. has issued Fokker Service Bulletin SBF100-32-167, dated December 14, 2016. This service information describes procedures for a one-time inspection of the nose LG control cable; a maintenance records check; detailed inspection, replacement, and lubrication of the LG handle teleflex cable; and revision of

the maintenance program. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 8 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection and maintenance or inspection program revision	4 work-hours X \$85 per hour = \$340	\$0	\$340	\$2,720
Reporting	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$680

We estimate the following costs to do any necessary on-condition actions that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these actions:

#### **On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Maintenance records check, inspection, replacement, and lubrication	1 work-hour X \$85 per hour = \$85	\$0	\$85

### **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection

of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
3. Will not affect intrastate aviation in Alaska, and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.



## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-04-03 Fokker Services B.V.:** Amendment 39-19198; Docket No. FAA-2017-1021; Product Identifier 2017-NM-052-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Fokker Services B.V. Model F28 Mark 0100 airplanes, certificated in any category, serial numbers 11244 through 11481 inclusive, if maintenance records show that the airplane is in a post-Fokker Service Bulletin SBF100-32-107 configuration.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by a report that lack of maintenance on a control system cable caused a hydraulic lock and difficult operation of the nose landing gear (LG) handle, preventing full extension of the nose LG when landing. We are issuing this AD to detect and correct erratic or hard-to-move LG handles, which could lead to the nose LG not being in the fully extended position during landing and consequent damage to the airplane and injury to the flight crew and passengers.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspection**

Within 3 months after the effective date of this AD: Do a general visual inspection of the LG handle teleflex cable conduit connector for the presence of a grease nipple, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-167, dated December 14, 2016.

**(h) Maintenance Records Check**

If, during the inspection required by paragraph (g) of this AD, a grease nipple is not found installed: Within 3 months after the effective date of this AD, check the maintenance records of the affected airplane for the previous 3 months for reports of an erratic or hard-to-move LG handle, and check the maintenance records to determine the date of the most recent installation, or inspection/lubrication, as applicable, of the LG handle teleflex cable.

**(i) Inspection, Replacement, and Lubrication**

Based on results of the maintenance records check required by paragraph (h) of this AD: Within the applicable compliance times specified in Table 1 to paragraph (i) of this AD, do a detailed inspection for corrosion and damage of the LG handle teleflex cable, replace the LG handle teleflex cable if any corrosion or damage is found, and lubricate the LG handle teleflex cable, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-167, dated December 14, 2016.

**Table 1 to paragraph (i) of this AD – Compliance Times**

<b>Results of Maintenance Records Check</b>	<b>Compliance Time</b>
Report(s) of erratic and/or hard-to-move LG handle	Before further flight after accomplishing the check required by paragraph (h) of this AD
Last installation or inspection/lubrication of the LG handle teleflex cable is not known	Before further flight after accomplishing the check required by paragraph (h) of this AD
Last installation or inspection/lubrication of the LG handle teleflex cable is known and the airplane has 18,000 flight cycles or more, or 12 years or more, since the last installation or inspection/lubrication of the LG handle teleflex cable	Before further flight after accomplishing the check required by paragraph (h) of this AD
Last installation or inspection/lubrication of the LG handle teleflex cable is known and the airplane has more than 12,000 flight hours, but less than 18,000 flight cycles, since the last installation or inspection/lubrication of the LG handle teleflex cable	Within 6 months after accomplishing the check required by paragraph (h) of this AD
Last installation or inspection/lubrication of the LG handle teleflex cable is known and the airplane has 8 years or more but less than 12 years since the last installation or inspection/lubrication of the LG handle teleflex cable	Within 6 months after accomplishing the check required by paragraph (h) of this AD

**(j) Maintenance or Inspection Program Revision**

Within 6 months after the effective date of this AD: Revise the maintenance or inspection program, as applicable, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-167, dated December 14, 2016, to incorporate the applicable tasks and associated thresholds and intervals, based on the airplane configuration (pre- or post-SBF100-32-107) determined in the inspection required by paragraph (g) of this AD.

**(k) Reporting**

Within 3 months after the effective date of this AD, or within 30 days after doing the inspection required by paragraph (g) or (h) of this AD, whichever occurs later: Report the findings of the inspection specified in paragraph (g) of this AD, and the records check specified in paragraph (h) of this AD, to Fokker Services B.V., in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-32-167, dated December 14, 2016.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before

using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Fokker B.V. Service's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0068, dated April 24, 2017, for related information. This MCAI may be found

in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1021.

(2) For more information about this AD, contact Tom Rodriguez, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th Street, Des Moines, WA 98198; telephone 206-231-3226; fax 206-231-3398.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Fokker Service Bulletin SBF100-32-167, dated December 14, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email [technicalservices@fokker.com](mailto:technicalservices@fokker.com); Internet <http://www.myfokkerfleet.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 9, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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